

### **REMARKS**

Claims 1-31 are pending in the application. Claims 1-23 stand rejected.

Applicant gratefully acknowledges Examiner's indication that claims 24-31 are allowed.

By the above amendment, Claim 14 has been amended to remove a typographical error, i.e., the inadvertently repeated phrase "of the type of the type" has been amended to recited "of the type". Thus, the above amendment does not raise new issues that would require an additional search or consideration. Accordingly, entry of this Amendment is requested.

The Examiner's reconsideration of the claim rejections is respectfully requested in view of the above amendments and following remarks.

#### **Claim Rejections- 35 U.S.C. § 112**

Claim 14 has been amended as noted above to correct a typographical error. Accordingly, withdrawal of the rejection is requested.

#### **Claim Rejections- 35 U.S.C. § 102**

Claims 1-3 and 8-10 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,355,498 to Provino. Applicant respectfully traverses the rejection and submits that claims 1 and 8 are patentably distinct and patentable over Provino.

Indeed, it is respectfully submitted that Examiner has misconstrued the teachings of Provino and misapplied such teachings to the claimed invention. Indeed, there are clear fundamental differences between the computer initialization processes taught by Provino and the methods recited in claims 1 and 8.

The claimed inventions are directed to computer initialization methods which essentially include methods for initializing (programming) one or more programmable

logic devices (which are used for booting the computer system) during a period of system initialization so that the programmable logic devices are ready to be used for booting when system initialization is complete. FIGs. 6, 7, 8a and 8b of Applicants' specification provide exemplary methods that embody the above principles, and the Examiner is respectfully directed to review these Figures and corresponding text to obtain a better understanding of the claimed inventions.

For instance, with respect to claims 1 and 8, a computer initialization includes sensing a command signal to boot the computer system, and then generating a first control signal (e.g., signal 410, FIG. 6) to initialize a boot process and generating a second control signal (e.g., signal 1030 in FIG. 6) to initialize (program) a programmable logic device prior to completion of the initialization of the boot process. Thereafter, a boot process is commenced to boot the computer system using the initialized (programmed) programmable logic device to perform input/output (I/O) or DMA (direct memory access) transfers.

Provino does not disclose or suggest generating a second control signal to initialize a programmable logic device prior to completion of the initialization of the boot process. Indeed, Provino discloses (in FIGs. 1, 4, 7 and 8) a method of computer initialization, whereby in response to a boot command, a CPU (14) fetches and executes a bootstrap program (44) from a system boot prom (30). The bootstrap program (44) is executed by the CPU (14) to initialize a boot prom interface (48) in the memory (16) which points to a standard device driver (46) residing in the system boot prom (30) or a device driver (102) residing in a third party boot prom (100). The bootstrap program (44) then loads a boot program from the boot device (20) or (104) into memory (16), and the

boot program begins loading the operating system from the boot device into memory using the device driver pointed to by the pointer in the boot prom interface.

In view of the above, it is clear that Provino does not disclose “initializing a programmable logic device” as contemplated by the claimed inventions. Indeed, when properly construed in view of Applicant’s specification, the term “initializing a programmable logic device” means “programming a programmable logic device” or loading logic code into the programmable logic device (see, e.g., page 11, line 17 – page 12., line 9). It is not fully clear from the Office Action what Examiner considers to be a “programmable logic device” in Provino. However, based on the cited sections of Provino, it appears that Examiner considers the non-volatile boot prom (30) to be a “programmable logic device”.

In this case, Provino does not teach “programming the boot prom”, much less generating a second control signal to commence initialization of the boot prom during system initialization. Although a PROM may be generally considered a programmable logic device, a PROM is a “one-time programmable logic device”. In the boot process taught by Provino, the boot prom (30) persistently stores the logic code (i.e., bootstrap program (44) and device driver (46)) such that there is no need to initialize (program) the PROM during system initialization. Accordingly, the withdrawal of the rejections §102 is respectfully requested.

#### **Claim Rejections- 35 U.S.C. § 103**

Claims 4-7 and 11-23 stand rejected as being unpatentable over Provino in view of AAPA. Claims 14 and 19 (as well as 1 and 8) essentially recite generating a control signal to *initialize (program) a programmable logic device in advance of the boot*

*process to perform input/output (I/O) or DMA (direct memory access) transfers for the boot process*, which is neither disclosed nor suggested by Provino or AAPA, singularly or in combination. Therefore, claims 1, 8, 14 and 19, and all claims that depend from claims 1, 8, 14 and 19 are patentable over Provino and AAPA. Accordingly, the withdrawal of the rejections of claims 4-7 and 11-23 under §103 is respectfully requested.

Respectfully submitted,



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